

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A fuel cell system, comprising:
 - a laminate (~~170~~) of unit cells (~~17a, 17b~~), each unit cell (~~17a, 17b~~) comprising a coolant passage (~~11a, 11b~~);
 - a coolant supply manifold (~~12~~) passing through the laminate (~~170~~), which distributes coolant from a coolant recirculation device (~~100~~) provided outside the laminate (~~170~~) to the coolant passages (~~11a, 11b~~) of the unit cells (~~17a, 17b~~);
 - a coolant discharge manifold (~~13~~) passing through the laminate (~~170~~), which recovers coolant from the coolant passages (~~11a, 11b~~) of the unit cells (~~17a, 17b~~) to the coolant recirculation device (~~100~~);
 - a valve (~~3, 4~~) which shuts off circulation of the coolant between the laminate (~~170~~) and the coolant recirculation device (~~100~~); and
 - a bypass passage (~~14a, 14b~~) connecting the coolant supply manifold (~~12~~) and the coolant discharge manifold (~~13~~), wherein the bypass passage (~~14a, 14b~~) has a larger cross-section than a cross-section of the coolant passages (~~11a, 11b~~).
2. (Currently Amended) The fuel cell system as defined in Claim 1, wherein the valve (~~3, 4~~) comprises a valve (~~3~~) which shuts off the connection between the coolant supply manifold (~~12~~) and the coolant recirculation device (~~100~~).
3. (Currently Amended) The fuel cell system as defined in Claim 1, wherein the valve (~~3, 4~~) comprises a valve (~~4~~) which shuts off the connection between the coolant discharge manifold (~~13~~) and the coolant recirculation device (~~100~~).

4. (Currently Amended) The fuel cell system as defined in ~~any one of Claim 1 through Claim 3~~, wherein the unit cells ~~(17a, 17b)~~ comprise a first unit cell ~~(17b)~~ situated in a center portion in the lamination direction of the laminate ~~(170)~~, and a second unit cell ~~(17a)~~ situated in another portion including ends of the laminate ~~(170)~~, and a circulation resistance of the coolant passage ~~(11b)~~ of the first unit cell ~~(17b)~~ is set to be less than a circulation resistance of the cooling passage ~~(11a)~~ of the second unit cell ~~(17a)~~.

5. (Currently Amended) The fuel cell system as defined in Claim 4, wherein the laminate ~~(170)~~ has a vertical cross-section in a direction of lamination in which the center portion of the laminate ~~(170)~~ is situated lower than both ends of the laminate ~~(170)~~.

6. (Currently Amended) The fuel cell system as defined in Claim 4, wherein the fuel cell system further comprises a pair of grip members ~~(2)~~ which grip the laminate ~~(170)~~, and the bypass passage ~~(14a, 14b)~~ comprises a bypass passage ~~(14a)~~ formed inside one of the grip members ~~(2)~~, and a bypass passage ~~(14b)~~ formed inside the other of the grip members ~~(2)~~.

7. (Currently Amended) The fuel cell system as defined in Claim 6, wherein the fuel cell system further comprises a pump ~~(5a, 5b)~~ which recirculates the coolant in a coolant recirculation passage including the coolant supply manifold ~~(12)~~, the coolant discharge manifold ~~(13)~~, and the bypass passage ~~(14a, 14b)~~.

8. (Currently Amended) The fuel cell system as defined in Claim 7, wherein the fuel cell system further comprises a temperature sensor ~~(21a, 21b)~~ which detects a temperature of the laminate ~~(170)~~, and a programmable controller ~~(7)~~ programmed to control a discharge flow rate of the pump ~~(5, 5a, 5b)~~ based on the temperature of the laminate ~~(170)~~.

9. (Currently Amended) The fuel cell system as defined in Claim 8, wherein the controller ~~(7)~~ is further programmed to open and close the valve ~~(3, 4)~~ based on the temperature of the laminate ~~(170)~~.

10. (Currently Amended) The fuel cell system as defined in Claim 9, wherein the fuel cell system further comprises a temperature deviation detection sensor (~~21a, 21b, 210~~) which detects a temperature deviation inside the laminate (~~170~~), and the controller (~~7~~) is further programmed to vary an opening of the valve (~~3, 4~~) based on the temperature deviation inside the laminate (~~170~~).

11. (Currently Amended) The fuel cell system as defined in Claim 10, wherein the temperature deviation detection sensor (~~21a, 21b, 210~~) comprises a sensor (~~21b~~) which detects a temperature of the first unit cell (~~17b~~), and a sensor (~~21a~~) which detects a temperature of the second unit cell (~~17a~~).

12. (Currently Amended) The fuel cell system as defined in Claim 7, wherein the fuel cell system further comprises a voltage sensor (~~24a~~) which detects a power generation voltage of the laminate (~~170~~), and a programmable controller (~~7~~) which controls a discharge flow rate of the pump (~~5, 5a, 5b~~) based on the power generation voltage of the laminate (~~170~~).